

Biosciences Career Pathway

MISSOURI ECONOMIC RESEARCH & INFORMATION CENTER
MISSOURI DEPARTMENT OF HIGHER EDUCATION
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What are Career Pathways?

Career Pathways are groups of occupations within a career field. Occupations within a pathway share common skills, knowledge, and interests. The pathways use industry-recognized credentials and are examples of how different levels of training or education can help provide opportunities for career advancement.

Missouri Numbers:

 **2,669 Employers**

 **44,470 Workers**

 **\$60,398 Average Wage**

Why Have a Career in Biosciences?

Developments in biotechnology rapidly change the way we live, work, and learn.

Missouri has a strong presence in Plant and Agricultural Technology, Biomedicine, and Companion and Feed Animal Sciences.

Bioscience represents 1.9 percent of total private sector employment, employing over 44,000 workers in 2,669 businesses in 2019. Employment has been growing at an average of 2.1 percent per year from 2014 to 2019.

Missouri has high employment concentrations in Bioscience, particularly in Animal Food Manufacturing, Hog and Pig Farming and Agricultural Chemical Manufacturing.

Bioscience industry wages averaged \$60,398 in 2019, higher than the state average of \$51,139 for all industries.

From research to production, there are a variety of innovative and rewarding careers in the Bioscience fields of Production, Research and Development, and Animal Sciences.

Know the Basics

Bioscience deals with how living things work and interact with each other, and teaches how to ask questions, make observations, and solve problems. Soft skills, such as interpersonal skills, professionalism, and dependability are important in all industries and occupations, including Bioscience. Bioscience deals heavily with research and production, so knowledge of mathematic and scientific principles is a must. Safety and quality control are also a critical part of this industry, so attention to detail and continuous learning are necessary.

Skills needed for Success:

In addition, Bioscience has a set of industry-wide technical competencies that represent the knowledge and skills necessary to be successful in this industry. Research and development, manufacturing process design and development, knowledge of medical devices, drugs, and pharmaceuticals, as well as knowledge of agricultural feedstock and chemicals are some of the skills that may be needed for success.

Who's Hiring in Missouri?

Bayer Corporation

Stryker Medical

Pfizer

MilliporeSigma

Bunge



Now

Short-Term On-the-Job Training

Production

Research & Development

Animal Science

Helpers-Production Workers
Entry: \$24,790; Average: \$30,550

Weighers, Measurers, Checkers, and Samplers, Recordkeeping
Entry: \$28,690; Average: \$36,050

Farmworkers, Farm, Ranch, & Aquacultural Animals
Entry: \$23,510; Average: \$29,300

Certificates: Forklift Operator

Degrees: Chemistry
Certificates: American Society for Quality (ASQ), Certified Quality Auditor

Certificates: Certified Manager of Animal Resources

Next

Certificate, Associate Degree, Apprenticeship, Moderate- to Long- Term On-the-Job Training

First-Line Supervisor of Production Workers
Entry: \$42,220; Average: \$60,230

Industrial Machinery Mechanics
Entry: \$42,700; Average: \$54,690

Chemical Equipment Operators & Tenders
Entry: \$32,440; Average: \$43,710

Chemical Technicians
Entry: \$35,340; Average: \$49,070

Agricultural & Food Science Technicians
Entry: \$34,760; Average: \$47,890

Inspectors, Testers, Sorters, Samplers, & Weighers
Entry: \$34,350; Average: \$45,350

Veterinary Technologists & Technicians
Entry: \$25,010; Average: \$32,670

Veterinary Assistants & Laboratory Animal Caretakers
Entry: \$23,010; Average: \$29,000

Degrees: Industrial Mechanics and Maintenance
Certificates: Commercial Driver's License, Chemical Operator

Degrees: Chemistry
Certificates: American Society for Quality (ASQ), Certified Quality Auditor

Certificates: Veterinary Technician/Technologist, Laboratory Animal Technician

Later

Bachelor's Degree or Advanced Degree

Industrial Production Managers
Entry: \$76,440; Average: \$104,990

Chemists
Entry: \$49,290; Average: \$73,700

Veterinarians
Entry: \$69,360; Average: \$87,040

Chemical Engineers
Entry: \$78,920; Average: \$105,990

Farmers, Ranchers, & Other Agricultural Managers
Entry: \$50,520; Average: \$70,130

Medical Scientists
Entry: \$48,180; Average: \$75,330

Degrees: Engineering, Business Administration & Management

Degrees: Chemistry, Clinical Laboratory Science/Technologist, Chemical Engineering

Degrees: Animal Sciences, Horticultural Operations, Veterinary Medicine

Sources:

Burning Glass Technologies Labor/Insight™ tool

Employment and Training Administration, Competency Model Clearinghouse

2019 Occupational Employment Survey Wage data, U.S. Bureau of Labor Statistics

Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics

Top employers data is based on 2020 online job ads



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